INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/017528

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl⁷ B32B15/08, C23C28/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) Int.Cl⁷ E32B15/08, C23C28/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho 1926-1996 Toroku Jitsuyo Shinan Koho 1994-2004

Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No |
|-----------|--|----------------------|
| Y | JP 2002-53980 A (NKK Corp.), 19 February, 2002 (19.02.02), Claims | 1-3 |
| | & EP 1291453 A1 & US 2003/0072962 A1 | |
| Y | JP 2002-53979 A (NKK Corp.), 19 February, 2002 (19.02.02), Claims | 2 |
| | & EP 1291453 A1 & US 2003/0072962 A1 | |
| Y | WO 2001/042530 Al (Toyo Kohan Co., Ltd.), 14 June, 2001 (14.06.01), Claims & JP 2001-544396 A | 1-3 |
| | | |
| | | |
| | | |

| (| |
|--|---|
| Further documents are listed in the continuation of Box C. | See patent family annex. |
| * Special categories of cited documents: | "T" later document published ofter the interesting I St. |
| "A" document defining the general state of the art which is not considered to be of particular relevance | "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "E" earlier application or patent but published on or after the international filing date | "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive |
| "L" document which may throw doubts on priority claim(s) or which is | step when the document is taken alone |
| special reason (as specified) | "Y" document of particular relevance; the claimed invention cannot be |
| "O" document referring to an oral disclosure, use, exhibition or other means | considered to involve an inventive step when the document is combined with one or more other such documents, such combination |
| "P" document published prior to the international filing date but later than the | being obvious to a person skilled in the art |
| priority date claimed | "&" document member of the same patent family |
| Date of the actual completion of the international search | Date of mailing of the international search report |
| 25 January, 2005 (25.01.05) | 15 February, 2005 (15.02.05) |
| Name and mailing address of the ISA/ | Authorized officer |
| Japanese Patent Office | Translated office; |
| Facsimile No. | Telephone No. |
| orm PCT/ISA/210 (second sheet) (January 2004) | |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2004/017528

| Category* Y | DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the releva JP 2003-300278 A (Toyo Kohan Co., Ltd.), 21 October, 2003 (21.10.03), Claims | nt passages | Relevant to claim No. |
|-------------|--|-------------|-----------------------|
| | JP 2003-300278 A (Toyo Kohan Co., Ltd.), 21 October, 2003 (21.10.03), Claims | | |
| | (Family: none) | | • |
| | | | |
| | | | · |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Form PCT/ISA/210 (continuation of second sheet) (January 2004)